

REMARKS

1-2. Claims 4-13, 33-37, 44, 48, 49 and 52 currently stand rejected for allegedly failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention.

Specifically, the Office Action (hereinafter “Action”) contends that “it is unclear what the phrase ‘arranged at opposed ends thereof’ is supposed to represent” in independent claim 4. Applicants have amended claim 4 to clarify the identified language. Consequently, applicants respectfully request the rejection be withdrawn.

4. Claims 4, 5, 8, 9, 12, 13, 33, 44 and 52 currently stand rejected for allegedly being anticipated by U.S. Patent No. 6,103,114 (hereinafter “Tanner”).

Amended claim 4 recites a mounting part of or for a water treatment cartridge. The mounting part has “a generally circular sealing surface and an elongate direction in a horizontal cross-section, with mounting lugs arranged at opposed ends of the mounting part along said elongate direction of the mounting.” In contrast, Tanner teaches that a water treatment device 10 includes a filter cartridge 10 having a circular cross-section. (Tanner, FIG. 1). As known in the art, whereas elongated shapes have major axes (e.g., the longest diameter passing through a centroid) and minor axes (e.g., the diameter perpendicular to the major axis passing through the centroid), a circle has an equal diameter in all directions (i.e., 360 degrees around). (see Wikipedia.org, “semi-major axis” and “semi-minor axis”). Therefore, the circular cartridge 50 as taught in Tanner does not have an elongate direction in a horizontal cross-section.

For at least the reasons provided above, applicants respectfully submit that claim 4, and thus claims 5, 8, 9, 12, 13, 33, 44 and 52 are not anticipated by Tanner, and requests that the aforesaid rejections be withdrawn and that claims 4, 5, 8, 9, 12, 13, 33, 44 and 52 be passed to issuance.

5. Claim 64 currently stands rejected for allegedly being anticipated by Tanner.

Claim 64 has been cancelled. As a result, applicants respectfully submit that this rejection be withdrawn.

7. Claims 1-3 currently stands rejected for allegedly being unpatentable over Tanner in view of U.S. Patent No. 5,811,004 (hereinafter “Robertson”).

Claim 1 recites a water treatment cartridge “having a major and a minor axis in a horizontal cross-section, with mounting lugs being provided at the upper end of the cartridge, generally aligned with the major axis of the cartridge.” The Action contends that the aforesaid water treatment cartridge is obvious in view of Tanner and Robertson. Specifically, the Action contends that Tanner discloses a filter cartridge that has mounting lugs and two equal axes: a major axis and a minor axis, and that Robertson discloses a filter cartridge that may have a circular, oval or polygonal shaped cross-section. Applicants respectfully submit that the Action has failed to establish a prima facie case of obviousness. (see MPEP §2141).

First, the Action has failed to present any rationales supporting the contention that a person of ordinary skill in the art would have been motivated at the time of invention to have modified the circular filter cartridge disclosed in Tanner to have the oval or the polygonal cross-section as taught in Robertson. (see MPEP §2141)(see also MPEP §2143, “The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.”).

Second, a person of ordinary skill in the art would not have been motivated to modify the cartridge 50 in Tanner to have an oval or polygonal cross section as taught in Robertson. Specifically, both references teach that their respective cartridges (50, 34) and sleeve / extension (34, 80) have similar cross-sectional geometries in order to form a water-tight seal(s) therebetween. (see Tanner, FIGS. 1 and 5; Robertson, FIG. 13). In particular, Tanner teaches that the cartridge 50 and sleeve 34 have circular cross-sections, whereas Robertson teaches that the cartridge 34 and the extension 80 may have round, oval or polygonal cross-sections. (see Tanner, FIGS. 1 and 5; Robertson, FIG. 13, col. 7, lines 13-20). As taught in Tanner, the cartridge 50 is installed by inserting it into the sleeve 34 and thereafter twisting it clockwise until pins 57, which extend out from the cartridge 50, snap into terminal end portions 38 of slots 37 in the sleeve 34. (see Tanner, FIG. 5, col. 4, lines 6-16). In contrast, according to Robertson, as illustrated in FIG. 13, the cartridge 34 can merely be placed / dropped into the extension 80. In addition, where the cartridge 34, and thus the extension 80, has an oval cross-section, the cartridge 34 would be physically prevented from turning relative the extension 80.

As a result of the foregoing, a person of ordinary skill in the art would not have been motivated to modify the cartridge 50 in Tanner to have an oval or polygonal cross section as taught in Robertson. Specifically, if both the cartridge 50 and the sleeve 34 had an oval cross-section, the cartridge would be physically unable to twist relative to and lock with the sleeve 34, thereby negating the advantage of the invention of Tanner. Alternatively, if the cartridge 50 had an oval cross-section and the sleeve 34 had a circular cross-section, such that the cartridge 50 could twist in the sleeve 34, there would be large gaps therebetween; i.e., the connection between the cartridge 50 and the sleeve 34 would not be water tight. In addition, such an oval-circular configuration would controvert the teachings of both Tanner and Robertson since both references explicitly teach that the cartridge (50, 34) and the sleeve / extension (34, 80) have the same cross-sectional geometries.

Third, even assuming for the moment, without admitting, that the cartridge 50 in Tanner were modified to have an oval or a polygonal cross-section as taught in Robertson, the combination still fails to teach or suggest the feature of “with mounting lugs being provided at the upper end of the cartridge, generally aligned with the major axis of the cartridge.”

Specifically, Tanner merely teaches that the pins 57 extend outwardly from the cartridge 50 and are oppositely arranged about its circular cross-section. (see Tanner, FIG. 1, col. 4, lines 6-16). As known in the art, whereas elongated shapes have major axes (e.g., the longest diameter passing through a centroid) and minor axes (e.g., the diameter perpendicular to the major axis passing through the centroid), circles have a single diameter (i.e., the diameter is equal in all directions). (see Wikipedia.org, “semi-major axis” and “semi-minor axis”). Therefore, the combination fails to teach or suggest where to locate the pins 57 on such a modified oval or polygonal cartridge 50. For example, the pins 57 could be located on the minor axis of the oval or the polygonal cartridge.

For at least the reasons provided above, applicants respectfully submit that claim 1, and thus claims 2 and 3, are not obvious in view of Tanner and Robertson, and request that the aforesaid rejections be withdrawn and that claims 1-3 be passed to issuance.

8. Claim 6 currently stands rejected as allegedly being unpatentable over Tanner in view of Robertson.

Applicants respectfully direct the Examiner to the remarks above pertaining to amended claim 4. For at least the reasons as set forth above, applicants respectfully submit the apparatus of claim 6 is patentable.

9. Claims 7, 10 and 11 currently stand rejected as allegedly being unpatentable over Tanner in view of U.S. Publication No. 2002/0036162 (hereinafter "Magnusson").

Applicants respectfully direct the Examiner to the remarks above pertaining to amended claim 4. For at least the reasons as set forth above, applicants respectfully submit the apparatus of claims 7, 10 and 11 is patentable.

10. Claims 34-37 currently stand rejected as allegedly being unpatentable over Tanner in view of U.S. Patent No. 5,002,665 (hereinafter "Brueggermann").

Applicants respectfully direct the Examiner to the remarks above pertaining to amended claim 4. For at least the reasons as set forth above, applicants respectfully submit the apparatus of claims 34-37 is patentable.

11. Claim 48 currently stands rejected as allegedly being unpatentable over Tanner in view of U.S. Patent No. 5,873,995 (hereinafter "Huang").

Applicants respectfully direct the Examiner to the remarks above pertaining to amended claim 4. For at least the reasons as set forth above, applicants respectfully submit the apparatus of claim 48 is patentable.


12. Claim 49 currently stands rejected as allegedly being unpatentable over Tanner in view of Huang and either U.S. Patent No. 5,525,214 (hereinafter "Hembree") or U.S. Patent No. 6,123,837 (hereinafter "Wadsworth").

Applicants respectfully direct the Examiner to the remarks above pertaining to amended claim 4. For at least the reasons as set forth above, applicants respectfully submit the apparatus of claim 49 is patentable.

As applicants have traversed the rejections raised by the Examiner, it is respectfully requested that the Examiner withdraw the stated rejections, allow claims 1-13, 33-37, 44, 48-49 and 52, and pass the present application on to issuance. In the event a fee is due, please charge our deposit account no. 50-3381.

Respectfully submitted,

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